

REMARKS

Claims 1, 11, and 21, are amended herein to recite forming (N) host computer groups, wherein (N) is greater than or equal to 1. Support can be found in the Specification on Page 20 at Lines 15-16.

Claims 1, 11, and 21, are further amended herein to recite that a first host computer is owned by a first person, and wherein a second host computer is owned by a second person, and wherein a third host computer is owned by a third person, and wherein the first person, the second person, and the third person, differ. Support can be found in the Specification on Page 15 at Lines 8-16.

Claims 1, 11, and 21, are further amended herein to recite that a source logical volume is disposed in a first information storage and retrieval system comprising a first controller and a first plurality of logical volumes, and that a target logical volume is disposed in a second information storage and retrieval system comprising a second controller and a second plurality of logical volumes, wherein the first information storage and retrieval system is in communication with the second information storage and retrieval system via a fifth plurality of communication links. Support can be found in the Specification on Page 12 at Lines 14-20, and on Page 21 at Line 17 through Page 22 at Line 6, and in FIGs. 2A and 2B at elements 250 (first information storage and retrieval system, 260 (second information storage and retrieval system, and 280 (plurality of communication links).

Claims 1, 11, and 21, are further amended to recite when both the source logical volume and the target logical volume are not assigned to the (i)th logical volume group, denying the request to establish the copy service relationship. Support can be found in the Specification on

Page 23 at Lines 11-17.

No new matter has been entered. Reexamination and reconsideration of the application, as amended, is respectfully requested.

FIG. 3A stands objected to for FIG. 3A references Figure 3B, and Figure 3B has not been submitted. FIGs. 3A and 3B are attached herein to cure this objection.

Claims 1-4, 11-14, and 21-24, stand rejected under 35 U.S.C. 103(a) as being unpatentable over NPL entitled "HP-UX 10.0 Logical Volume Manager White Paper" (Hewlett-Packard), in view of Padmanabhan et al. (U.S. Pub. No. 2003/0188188), and further in view of Merkey et al. (U.S. Pub. No. 2003/0041211).

Claims 5-7, 15-17, and 25-27, stand rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Hewlett-Packard and Padmanabhan et al., and further in view of Atkin (U.S. Pat. No. 6,145, 066).

Claims 8, 18, and 28, stand rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Hewlett-Packard and Padmanabhan et al., Merkey, et al., and further in view of Tremain (U.S. Pub. No. 2002/0069369).

Claims 9-10, 19-20, and 29-30, stand rejected under 35 U.S.C. 103(a) over the combination of Hewlett-Packard and Padmanabhan et al., Merkey et al., and further in view of Mokryn et al. (U.S. Pat. No. 6,735,636).

Neither Hewlett-Packard, nor Padmanabhan et al., nor Merkey et al., singly or in combination, teach use of three host computers, wherein a first host computer is owned by a first person, and wherein a second host computer is owned by a second person, and wherein a third host computer is owned by a third person, and wherein the first person, the second person,

and the third person, differ, as recited by claims 1, 11, and 21, as amended herein. Moreover, neither Hewlett-Packard, nor Padmanabhan et al., nor Merkey et al., singly or in combination, teach forming (N) host computer groups, wherein (N) is greater than 1, as recited by claims 1, 11, and 21, as amended herein.

In addition, neither Hewlett-Packard, nor Padmanabhan et al., nor Merkey et al., singly or in combination, teach recite that a source logical volume is disposed in a first information storage and retrieval system comprising a first controller and a first plurality of logical volumes, and that a target logical volume is disposed in a second information storage and retrieval system comprising a second controller and a second plurality of logical volumes, wherein the first information storage and retrieval system is in communication with the second information storage and retrieval system via a plurality of communication links, as recited by claims 1, 11, and 21, as amended herein. Finally, neither Hewlett-Packard, nor Padmanabhan et al., nor Merkey et al., singly or in combination, teach that when both a source logical volume and a target logical volume are not assigned to an (i)th logical volume group, denying a request to establish a copy service relationship, as recited by claims 1, 11, and 21, as amended herein.

Claims 2-4, as amended herein, depend, directly or indirectly, from claim 1, as amended herein. Under 35 U.S.C. § 112, fourth paragraph, "a claim in dependent form shall be construed to incorporate by reference all the limitations of the claim to which it refers." "If an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious." MPEP 2143.03; *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed.Cir. 1988). Applicants respectfully submit that claims 2-4, as amended herein, are patentable over the teachings of Hewlett-Packard and/or Padmanabhan et al. and/or Merkey et al.

Claims 12-14, as amended herein, depend, directly or indirectly, from claim 11, as amended herein. Under 35 U.S.C. § 112, fourth paragraph, "a claim in dependent form shall be construed to incorporate by reference all the limitations of the claim to which it refers." "If an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious." MPEP 2143.03; *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed.Cir. 1988). Applicants respectfully submit that claims 12-14, as amended herein, are patentable over the teachings of Hewlett-Packard and/or Padmanabhan et al. and/or Merkey et al.

Claims 22-24, as amended herein, depend, directly or indirectly, from claim 21, as amended herein. Under 35 U.S.C. § 112, fourth paragraph, "a claim in dependent form shall be construed to incorporate by reference all the limitations of the claim to which it refers." "If an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious." MPEP 2143.03; *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed.Cir. 1988). Applicants respectfully submit that claims 22-24, as amended herein, are patentable over the teachings of Hewlett-Packard and/or Padmanabhan et al. and/or Merkey et al.

Atkin, Tremain, or Mokryn et al., fail to cure the deficiencies of Hewlett-Packard, Padmanabhan et al., and Merkey et al. Neither Hewlett-Packard, nor Padmanabhan et al., nor Merkey et al, nor Atkins, nor Tremain, nor Mokryn et al., singly or in combination, teach use of three host computers, wherein a first host computer is owned by a first person, and wherein a second host computer is owned by a second person, and wherein a third host computer is owned by a third person, and wherein the first person, the second person, and the third person, differ, as recited by claims 1, 11, and 21, as amended herein. Moreover, neither Hewlett-Packard, nor Padmanabhan et al., nor Merkey et al, nor Atkins, nor Tremain, nor Mokryn et al.,

singly or in combination, teach forming (N) host computer groups, wherein (N) is greater than 1, as recited by claims 1, 11, and 21, as amended herein.

In addition, neither Hewlett-Packard, nor Padmanabhan et al., nor Merkey et al, nor Atkin, nor Tremain, nor Mokryn et al., singly or in combination, teach recite that a source logical volume is disposed in a first information storage and retrieval system comprising a first controller and a first plurality of logical volumes, and that a target logical volume is disposed in a second information storage and retrieval system comprising a second controller and a second plurality of logical volumes, wherein the first information storage and retrieval system is in communication with the second information storage and retrieval system via a plurality of communication links, as recited by claims 1, 11, and 21, as amended herein. Finally, neither Hewlett-Packard, nor Padmanabhan et al., nor Merkey et al, nor Atkin, nor Tremain, nor Mokryn et al., singly or in combination, teach that when both a source logical volume and a target logical volume are not assigned to an (i)th logical volume group, denying a request to establish a copy service relationship, as recited by claims 1, 11, and 21, as amended herein.

Applicants respectfully submit that claims 5-10, 15-20, and 25-30, as amended herein, are patentable over any combination of Hewlett-Packard, Padmanabhan et al., Merkey et al., Atkin, Tremain, and/or Mokryn et al.

Having dealt with all of the outstanding objections and/or rejections of the claims, Applicants submit that the application as amended is in condition for allowance, and an allowance at an early date is respectfully solicited. In the event there are any fee deficiencies or

additional fees are payable, please charge them, or credit an overpayment, to our Deposit Account No. 170055.

Respectfully submitted,

/Dale F. Regelman/

Dale F. Regelman, Ph.D.
Attorney for Applicants
Reg. No. 45,625

CERTIFICATE OF ELECTRONIC FILING

I hereby certify that this correspondence is herewith being electronically transmitted via Electronic Filing System to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

/Reena Mendez/

Signature

April 6, 2010

Date of Signature

QUARLES & BRADY LLP
One South Church Avenue
Tucson, Arizona 85701

TEL 520-770-8703
FAX 520-770-2233